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## ADVENTIVE PLANTS IN NEW YORK

JOSEPH MONACHINO

THE following waifs, immigrants and escapes were collected in southern New York State and are, with one exception, represented by specimens deposited in the Herbarium of the New York Botanical Garden. The exception is *Aphaerema*, and this and *Pyrularia* were the only ones not collected by the writer. *Aphaerema*, *Photinia* and *Rorippa indica* (and of course the fungus), understandably enough, do not appear in either Fernald's "Gray's Manual of Botany" (1950) or Gleason's "The New Britton and Brown Illustrated Flora" (1952). It is definitely not recommended that these, or the New York find of *Pyrularia*, be entered in standard floras on the basis of the present record. Without further proof of naturalization, such singular discoveries should be regarded as merely casual stations, affording little more than first evidence of certain potentialities. The other species noted below suggest emendations, obviously of a minor nature, in one or both of the latest floras of the Northeastern United States.

**Sarcosphaera ammophila** (Dur. & Lév.) Seaver. *Monachino 517*, Fire Island, Long Island, Suffolk Co., N. Y., June 20, 1948; sand dunes, abundant over a long stretch (several miles) of shore; large collection made. *Monachino 518*, Gilgo State Park, east of Jones Beach, Long Island, Suffolk Co., N. Y., June 27, 1948; pure sand, a colony about 7 feet in diameter; about a mile further east several additional individuals seen. The writer showed this sand cup-fungus to Fred J. Seaver, who made a special trip to Fire Island to see and collect it for himself. The distribution given in Seaver's "North American Cup-fungi" (1942) is Florida to California and Michigan.

**Cynosurus echinatus** L. *Monachino 559*, grounds of the New York Botanical Garden, Bronx, N. Y. C., June 13, 1955; growing among awned and awnless forms of *Lolium multiflorum* Lam. with both smooth and

roughened upper culms. This species of dog's-tail appears in Fernald but not in Gleason.

**Festuca gigantea** (L.) Vill. *Monachino 555*, grounds of the New York Botanical Garden, Bronx, N. Y. C., June 22, 1955; abundant weed in one area. This fescue appears in Gleason but not in Fernald. The only previous New York record at the NYBG herbarium was the old Dobbs Ferry collection reported in the Bull. Torr. Bot. Club in 1881.

**Pyrularia pubera** Michx. *D. Giardino s. n.*, along Grand Central Parkway, near Cunningham Park, Queens, N. Y. C., May 21, 1954; spontaneous near *Rhododendron* and *Kalmia*. A staminate specimen was brought to me for identification by employees of the Park Department; it was thought by them to be "some kind of *Celastrus*." Surprising things sometimes appear among newly planted shrubs on highways and in parks. An outstanding example I recall (voucher not located) is *Aphaerema spicata* Miers, a flacourtiaceous subshrub native to southern Brazil, which was found in the Brooklyn Botanic Garden and referred to me for identification about sixteen years ago.

**Amaranthus crispus** (Lesp. & Thév.) A. Br. *Monachino s. n.*, Brooklyn, waste place in the vicinity of the Brooklyn Botanic Garden, N. Y. C., 1940; only fragment collected. Besides mine there is in the herbarium of NYBG no United States specimen of *A. crispus* collected less than half a century ago. I have not seen the species since 1940. The illustration for *A. crispus* in the New Britton and Brown is, at least in part, of *A. albus* L. The NYBG sheet of Olga Lakela 1714, Duluth, Minnesota, Aug. 16, 1936, distributed as *A. crispus*, used for the illustration and also as the basis for the "Duluth, Minn." record, is *A. albus*. The half utricle figured on the upper part of the illustration, presumably meant for *A. crispus*, shows clearly the circumscissile character and the sharp sepals of *A. albus*. The drawing of the utricle at the base of the habit sketch of a branch of the plant perhaps also indicates circumscission.

**Rorippa indica** (L.) L. H. Bailey. *Monachino 516*, grounds of the New York Botanical Garden, Bronx, N. Y. C., May 26, 1948; in grass by roadside near *Rhododendron* planting. Also collected by H. N. Moldenke in the same area on May 28, 1948, and May 16, 1949. I have not observed the plant on the grounds in recent years; matured siliques were not seen. My recollection is that a Moldenke specimen was sent to Reed C. Rollins for determination, but there is no note of this in the Herbarium nor in Dr. Moldenke's field book. Gleason lists the closely related *R. heterophylla* (Blume) Williams for New Jersey, "adventive in N. J. (Moldenke)." There is no voucher specimen in the Herbarium for this record.

**Alchemilla microcarpa** Boiss. & Reut. *Monachino 560*, Bayard Cutting Arboretum, near Great River station, Long Island, N. Y., June 18, 1955; large dense thriving colony. This species has not been previously reported north of Delaware and the District of Columbia. Its illustration in the New B. & B. shows glabrous, instead of hirtellous, leaf and stipule; the lobes of the stipule are drawn like those of *A. arvensis*

(L.) Scop., ovate, hardly longer than broad, much shorter than the entire portion, instead of "oblong, c. twice as long as broad, nearly as long as the entire portion." The quotation is from Clapham et al., "Flora of the British Isles" (1952), who regard the shape of the stipule-lobes important enough to be a key character in distinguishing this species from the closely related *A. arvensis*. It seems, however, that notwithstanding its inaccuracy the illustration was correctly based on *A. microcarpa* (probably *R. M. Harper 2307*, Athens, Georgia).

**Photinia villosa** (Thunb.) DC. *Monachino s. n.*, near High Bridge, Manhattan, N. Y. C., May 16, 1953; on a rocky incline, among native species in woodland. *Monachino 563*, from same shrub, June 3, 1956. *Monachino 571*, from a different shrub some distance away, June 10, 1956. Another shrub was seen at the furthest end of the woodland strip, but was not in flower. No fruits or seedlings were found. The *Photinia* was growing sufficiently removed from habitation or plantings to justify being recorded. As commonly known, *P. villosa* is not too rare in cultivation in N. Y. C. There is nothing remarkable about seeing self-sown young plants growing closely around their cultivated parent shrubs and trees. Some examples of this are *Albizzia*, *Laburnum*, *Cedrela*, *Halesia* ("often cult. and occasionally spreading" Fernald), *Styrax*, *Symplocos*, *Callicarpa*, *Clerodendron*. These rarely go far from their parents, and it is difficult to predict whether they will eventually become members of our wild flora. *Phellodendron*, completely disregarded by Gleason, is one that is sure to do so; in fact it already has, but is almost sure to become more wide-spread. It grows with the rapacity of *Ailanthus*, and finds a better footing in the woodlands than does *Ailanthus*. In the New York Botanical Garden grounds, the cork-tree has invaded the Hemlock Forest and competes successfully in the shade and in the open; it can be seen in various stages of development up to fruiting adults. Sometimes a great multitude of seedlings can be observed growing together. They are readily identified by their oval cotyledons which have finely crenulate margins and a clear translucent gland at each sinus. The fruit is a pungent drupe; when the flesh is removed the bony endocarps or stones upon drying snap open by themselves, like follicles. The seeds germinate very easily.

**Dolichos lablab** L. *Monachino s. n.*, Croton Aqueduct, Westchester Co., N. Y., Oct. 18, 1953; flowers purple. The hyacinth bean has been reported on the Atlantic border only as far north as the District of Columbia.

**Anthriscus sylvestris** (L.) Hoffm. *Monachino 554*, Croton Aqueduct, Westchester Co., N. Y., June 6, 1954; observed here for many years. The only previous United States specimen at the N. Y. Bot. Gd. was one collected by N. L. Britton on Staten Island in 1895. This species is mentioned here because it grew in such prolific numbers; it formed a dominant plant for quite a stretch of ground and proved itself highly competent to survive strong competition.

**Solanum sarachoides** Sendt. *Monachino 176*, Flushing, Long Island,

N. Y. C., Sept. 17, 1936; large stand in a waste place. My specimen is the only one from the eastern United States in the NYBG herbarium. This collection was the basis for the "*Solanum villosum*" record in *Torreyia* **40**: 83 (1940).—NEW YORK BOTANICAL GARDEN.

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## NOTES ON ILEX

GABRIEL EDWIN

THREE changes in the status of taxa, now more or less commonly accepted, are suggested:

1. ***Ilex longipes*** Chapm. in Trelease, *Trans. Acad. Sci. St. Louis* **5**: 346. 1889. *I. collina* Alexander, *Castanea* **6**: 30. 1941.

Alexander proposed *I. collina* as differing from *I. longipes* in coloration of the lower leaf surface, position and size of the leaf-teeth, presence or absence of glands on these teeth, the depths of grooving of the nutlets, and the size and coloration of the fruit. He stated that *I. collina* is most closely related to *I. montana* Torrey and Gray. Woods (*Castanea* **10**: 126–127, 1951) indicated that the grooving of the nutlets may be less pronounced than described by Alexander, and that the affinities of *I. collina* lie closest to *I. verticillata* (L.) Gray, citing similarities of leaf venation, thickness and number of marginal teeth on the leaves and the shape of the calyx lobes. He also extended the range of *I. collina* from Randolph County, West Virginia to Smythe County, Virginia.

The depth of the grooves on the nutlets of the various taxa in native *Ilex* varies greatly within a species as well as between species and Woods was fully justified in dismissing this character as non-diagnostic.

The number of ciliate calyx lobes in *I. collina* is never greater than six. The usual number in *I. verticillata* is eight. Also, the shape, size and coloration of the leaves separate *I. collina* from *I. verticillata*. It differs from *I. montana* in the length of the pedicels, absence of fruiting spurs, which may also be absent from *I. montana* at times, and in the lack of hairs or cilia on the calyx. The leaves of *I. montana* are larger, darker and more chartaceous.

However, it is very difficult to distinguish *I. collina* from *I. longipes*.